NEUROPEPTIDES
An International Journal

Editors
M. J. Brownstein
Laboratory of Cell Biology,
National Institute of Mental Health,
Building 36, Room 3A–17
Bethesda, Maryland 20892, USA

J. Hughes
Parke-Davis Research Units,
Addenbrooks Hospital Site,
Hills Road,
Cambridge CB2 2QB, UK

Volume 26

Churchill Livingstone
Edinburgh London Madrid Melbourne New York and Tokyo

Claims for issues not received should be made within 3 months of publication of the issue.

Copyright © Longman Group Ltd 1994. ISSN 0143–4179.

All rights reserved. Apart from fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Design and Patents Act, 1988, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the publishers (Churchill Livingstone, Robert Stevenson House, 1–3 Baxter's Place, Leith Walk, Edinburgh EH1 3AF), or in the case of reprographic reproduction in accordance with the terms of licences issued by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London W1P 9HE, UK.

Volume Contents

Volume 26

Evidence for Tachykinin NK-2 Receptors in Guinea-pig Airways from Binding and Functional Studies, Using [^{125}I]-[Lys^5, Tyr(I$_2$)^7, MeLeu^9, Nle^{10}]-NKA(4–10) 1
X-P. Zeng, S. Lavielle and E. Burcher

Inhibition in the Release of Immunoreactive β-endorphin from the Periaqueductal Grey During Isometric Contractions of Cat Hind-limb Muscles: the Effects of Clonidine 11
C. A. Williams, L. I. Holtsclaw, L. P. Nichols, P. L. Brien and J. A. Chiverton

Comparison of the NPY Receptors Mediating Vasoconstriction of the Guinea-pig Uterine Artery and Thoracic Vena Cava Using a Range of NPY Analogues 21
J. L. Morris and S. Sabesan

Capsaicin-like Effect of Resiniferatoxin in the Rat Stomach 29
M. Tramontana, D. Renzi, C. Panerai, C. Surrenti, F. Nappi, L. Abelli and S. Evangelista

The Role of Central Corticoliberin in the Ether Stress-induced Secretion of Neurohypophyseal Hormones and Corticosterone in the Rat 33
F. Laczi, T. Iványi, Z. Sarnyai, M. Vecsernyés, G. Lengyel, G. Szabó, E. Bíró, J. Gardi, J. Julesz and G. Telegdy

Subdiaphragmatic Vagotomy does not Prevent the Anti-exploratory Effect of Caerulein in the Elevated Plus-maze 39
E. Vasar, A. Lang, J. Harro, S. Kõks, V. Volke, S. Sihver, M. Bourin, J. Bradwejn and P. T. Männistö

Effects of Neuromedin U (NMU)-8 on the Rat Hypothalamo-pituitary-adrenal Axis. Evidence of a Direct Effect of NMU-8 on the Adrenal Gland 47
L. K. Malendowicz, G. G. Nussdorfer, A. Markowska, C. Tortorella, M. Nowak and J. B. Warchol

Synthesis and Biological Activity of NK$_1$ Tachykinin Antagonists not Containing D-residues 55
C. Poulos, M. Antoniou, R. Patacchini, C. A. Maggi and P. Rovero

Brain Cholecystokinin Octopeptide (CCK-8) Concentrations: Effect of Tryptophan and Other Serotonergic Agents 59
M-Y. Chan and F. Tang

The Effect of Neuropeptides on the Release of Neurotransmitter Amino Acids from Rat Striatum 65
Y. Ellis and J. A. Davies

Stimulation of Locomotion in Neonate Rats by TRH Analogue CG3703 71
K. A. Clarke and K. Kirby

Central Administration of Tyr-MIF-1 Stimulates Gastrointestinal Motility in Rats: Evidence for the Involvement of Dopamine, Sigma and CCK Receptors 77
M. Million, J. Fioramonti and L. Bueno

Neuropeptide Y Enhances LHRH Binding to Rat Gonadotrophs in Primary Culture 86
P. Leblanc, A. L'Héritier, R. Rasolonjanahary and C. Kordon

Distribution of Gastrin-releasing Peptide/Bombesin-like Immunoreactive Cell Bodies and Fibres in the Brainstem of the Cat 93
P. Marcos, R. Coveñas, J. A. Narváez, G. Tramu, J. A. Aguirre and S. González Barón

Vasoactive Intestinal Peptide Suppresses Neuronal Cell Death Induced by Nerve Growth Factor Deprivation in Rat Sympathetic Ganglion Cells in Vitro 103
S. Tanaka and T. Koike

Depolarization-induced Release of Corticotropin-releasing Factor (CRF) in Primary Neuronal Cultures of the Amygdala 113
M. S. Cratty and D. L. Birkle

N_{ω}-Nitro-L-Arginine Inhibits Vasodilations and Elevations of Both Cyclic AMP and Cyclic GMP Levels in Rat Aorta Induced by Calcitonin Gene-related Peptide (CGRP) 123
H. Hao, R. R. Fiscus, X. Wang and J. N. Diana

Nitroglycerin (Exogenous Nitric Oxide) Substitutes for Endothelium-Derived Nitric Oxide in Potentiating Vasorelaxations and Cyclic AMP Elevations Induced by Calcitonin Gene-related Peptide (CGRP) in Rat Aorta 133
R. R. Fiscus, H. Hao, X. Wang, W. A. Arden and J. N. Diana

Dexamethasone Down-regulates Endothelin Receptors in Human Cerebromicrovascular Endothelial Cells 145
D. B. Stanimirovic, R. M. McCarron and M. Spatz

Effects of Vasoactive Intestinal Peptide (VIP) on Scopolamine-induced Amnesia in the Rat 153
Y. Yamaguchi and H. Kobayashi

Neurotensin Modulates Cholinergic and Noncholinergic Neurotransmisson in Guinea-pig Main Bronchi in vitro 159
C. A. E. Martin, D. Gully, E. Naline and C. Advenier

In vitro Expression of Calcitonin Gene-related Peptide in Human Endothelial Cells Transfected With Plasmid and Retroviral Vectors 167
B. Sun, C. Plumpton, J. H. Sinclair and M. J. Brown

Effects of Central Angiotensin II and Angiotensin III on Baroreflex Regulation 175
E. Appenrodt and A. Brattström

Identification of a Novel Endothelin Receptor in Xenopus Laevis Liver 181
P. Nambi, M. Pullen and C. Kumar

Isolation and Characterization of Peptides Derived from the Cleavage of the Cytoplasmic Domain of Synaptophysin in Frog Brain 187
N. Chartrel, H. Vaudry and J. M. Conlon

Inhibition of Pro-cholecystokinin (CCK) Sulfation by Treatment with Sodium Chlorate Alters its Processing and Decreases Cellular Content and Secretion of CCK 8 195
M. C. Beinfeld

Immunoassays for Measurement of Chromogranin A and Pancreastatin-like Immunoreactivity in Humans: Correspondence in Patients with Neuroendocrine Neoplasia 201
U. Syversen, M. B. Jacobsen, D. T. O'Connor, K. Rønning and H. L. Waldum

Regulation of Feeding by Multiple Opioid Receptors in Cingulate Cortex; Follow-up to an in vivo Autoradiographic Study 207
K. D. Carr and T. D. Wolinsky

Calcitonin Genes (I and II) Expression in Human Nervous and Medullary Thyroid Carcinoma Tissues 215
R. Cohen, S. Giscard-Darteville, S. Bracq, P. Chanson, J. Mikol, A. Jullienne and F. Lasmoles

Effect of Electroacupuncture Tolerance by Different Frequencies on the Opioid Inhibition to Cardiovascular Activity in the Spinal Cord of Rats 221
L. Mei, S. F. Pu and J. S. Han

The Role of α-1 Adrenergic Receptors in the Stimulating Effect of Neuropeptide Y (NPY) on Rat Behavioural Activity 225
M. Śmiałowska, L. Gastoł-Lewińska and K. Tokarski

Behavioural Impairment Induced by Calcitonin Gene-related Peptide (CGRP) Antiserum in Passive Avoidance Reflex in rats 233
A. Kovács and G. Telegdy

The Effect of Atrial Natriuretic Peptides on Ion Transport by Muscle-stripped and Full-thickness Preparations of Rat Colon 237
A. Izmeth, S. Kirkham, R. A. Borman and D. E. Burleigh

ACTH-(11-24) Antagonizes ACTH-(1-24)-induced Behavioral Syndrome 241
S. Genedani and M. Bernardi

Modulation of Neurotransmission in Guinea-pig Airways by Galanin and the Effect of a New Antagonist Galantide 245
T. Takahashi, M. G. Belvisi and P. J. Barnes

Effects of Sequential Removal of Rats from a Group Cage, and of Individual Housing of Rats, on Substance P, Cholecystokinin and Somatostatin Levels in the Periaqueductal Grey and Limbic Regions 253
E. Brodin, A. Rosén, E. Schött and K. Brodin

Binding Characteristics of the Novel Highly Selective Delta Agonist, [^{3}H]Ile^{5,6}Deltorphin II 261
S. T. Nevin, L. Kabasakal, F. Ötvös, G. Töth and A. Borsodi

Mode of Action of Calcitonin-gene Related Peptide in Trout Gill Membranes: Evidence for a GTP Coupling Process 267
M. Fouchereau-Peron, Y. Arlot-Bonnemains and G. Milhaud

The Gut-brain Peptide Cyclo(His-Pro) is Secreted in a Pulsatile Fashion in Fasting Humans 273
D. Herminghuysen, C. Cook, H. Thompson, D. Bostick, F. Lee, L. Stokes, C. Hilton and C. Prasad

Structural Requirements of Bioactive Peptides for Interaction with Endopeptidase 22.19 281
A. C. M. Camargo, M. D. Gomes, O. Toffoletto, M. J. F. Ribeiro, E. S. Ferro, B. L. Fernandes, K. Suzuki, Y. Sasaki and L. Juliano

Neuropeptide Y (NPY) Enhances Proliferation of Human Colonic Lamina Propria Lymphocytes 289
Y. Elitsur, G. D. Luk, M. Colberg, M. S. Gesell, J. Dosescu and J. A. Moshier

Differential Effects of Intrathecally Injected Galanin on Antinociception Induced by β-endorphin and Morphine Administered Intracerebroventricularly in Mice 297
Hong-Won Suh, Dong-Keun Song, Yong-Seon Choi, Seung-Hwan Cheon and Yung-Hi Kim

α-trinositol Blocks Neuropeptide Y-induced Inositolphosphate Formation in Cerebral Vessels 305
I. Jansen, J. You and L. Edvinsson

Characterization of CGRP Receptors in Various Regions of Gerbil Brain 313
N. Aiyar, E. Baker, P. Nambi, G. Feuerstein and R. Willette

Detection of Immunoreactive Substance P-like Substances from Cat Brainstem Sites During Fatiguing Isometric Contractions 319
C. A. Williams, P. L. Brien, P. L. Nichols and R. Gopalan

Substance P Induces Biphasic Endothelium-dependent Relaxations in Pig and Rabbit Carotid Arteries 329
D. R. Gross, R. R. Fiscus, W. A. Arden, R. H. Maley, S. Lanzo and R. K. Salley

An Investigation into the Discriminative Stimulus and Reinforcing Properties of the CCK_B-receptor Antagonist, L-365,260, in Rats 343
A. Jackson, D. Tattersall, G. Bentley, W. Rycroft, A. Bourson, R. Hargreaves, M. Tricklebank and S. Iversen

Benextramine, an NPY Antagonist, Improves Sexual Behavior in Male Rats 355
R. Poggioli, A. Benelli, R. Arletti, B. Menozzi and A. Bertolini

[^{3}H]$Dynorphin_{1-8}$ Binding Sites in Frog (*Rana Esculenta*) Brain Membranes 359
S. Benyhe, J. Simon, A. Borsodi, M. Wollemann and E. A. Barnard

Effects of μ-, δ-and κ-agonists on Isolated Right Atria of the Rat 365
J. A. Micol and M. L. Laorden

Dynorphin-A and Vasopressin Release in the Rat: A Structure-activity Study 371
B. J. M. Van De Heijning, C. Maigret, I. Koekkoek-van den Herik, W. F. E. Smelik and Tj. B. van Wimersma Greidanus

Cholecystokinin Receptor Binding in Morphine Analgesia: Tolerance, Withdrawal and Abstinence 379
M. Welin, J. Harro, R. Yukhananov, F. Nyberg and L. Oreland

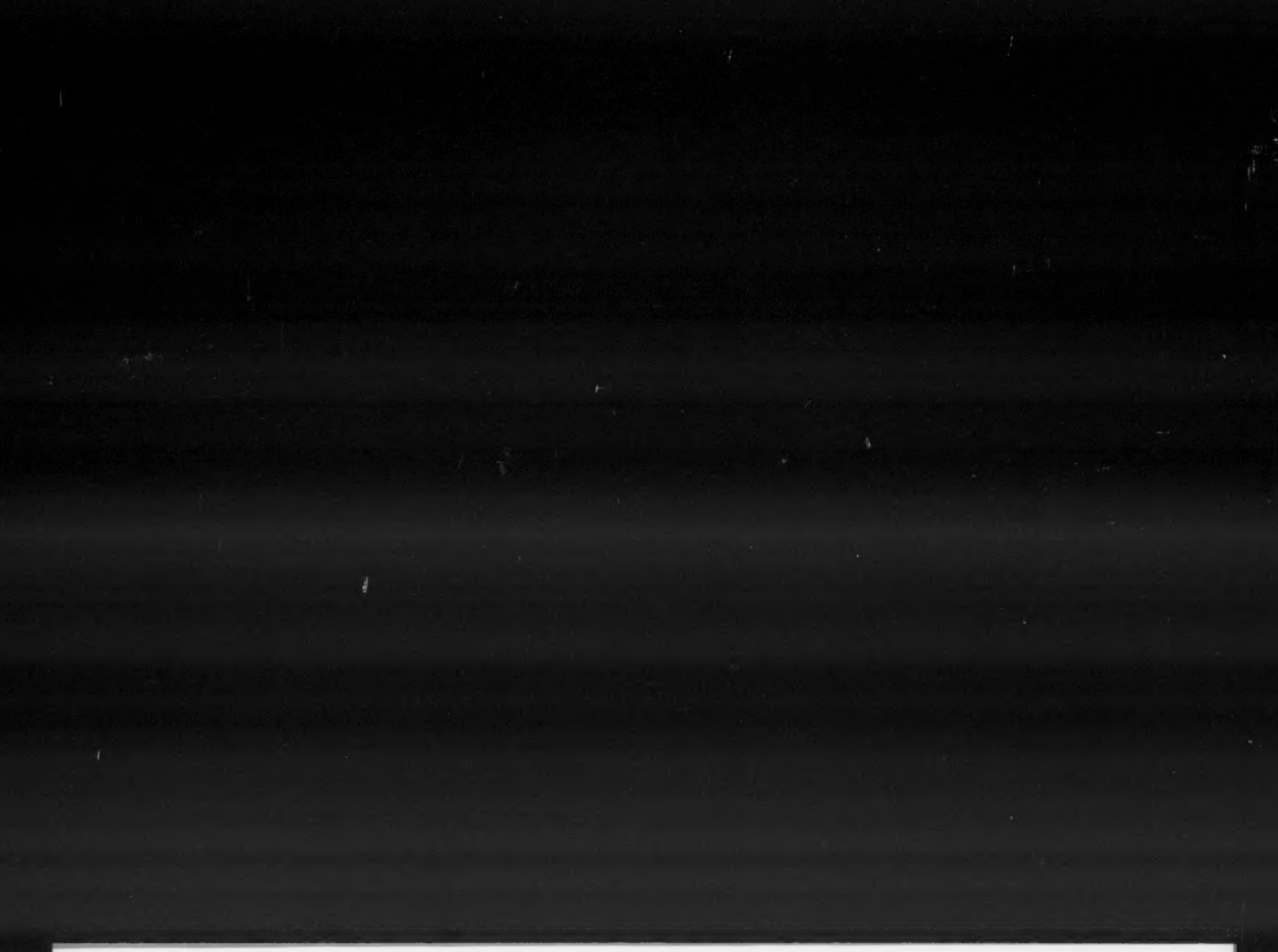
NK_1 and NK_2 Receptors are Similar in Man and Rabbit 385
F. Coge and D. Regoli

The Role of Neuropeptides in the Regulation of Adrenal Zona Fasciculata/Reticularis Function 391
J. P. Hinson, A. Purbrick, L. A. Cameron and S. Kapas

Effect of the Slow-release Formulation of Somatuline (BIM 23014) on Estrogen-induced Hyperprolactinemia and Lactotroph Hyperplasia in the Female Rat 399
N. Schussler, R. Farnoud, C. Rauch, M. Roche, M. Berthet, F. Thomas, F. Peillon and M. C. Bayet

Effect of a Neurokinin-1 (NK_1) Receptor Antagonist on Oedema Formation Induced by Tachykinins, Carrageenin and an Allergic Response in Guinea-pig Skin 405
P. Wilsoncroft, H. Euzger and S. D. Brain

Evidence for Localized Release of Substance P Within Rat Spinal Cord Evoked by Physiological and Electrical Stimuli 413
C. W. Lang and P. J. Hope

Cholecystokinin (CCK-8S) Prolongs 'Unsaturated' θ-pulse Induced Long-term Potentiation in Rat Hippocampal CA1 in vitro 421
D. Balschun and K. G. Reymann

Comparative ^{3}H-CCK-8S Binding Studies on CCKB-type Receptors in Guinea-pig Cortex and Continuous Cell Lines 429
R. Kaufmann, T. Schöneberg, P. Henklein, M. Boomgaarden, D. Sohr and T. Ott